

## Chapter 2

### Special Applications for CNR Deployment

#### 2-1. Special Forces, Ranger, and Long-Range Surveillance Units (LRSUs)

a. Using SINCGARS in Special Forces, Ranger, and LRSUs is limited. The requirement for medium- to long-range radios precludes using SINCGARS except in fairly static deployments. This is due primarily to the transmission characteristics of the VHF band. SINCGARS radios, if used, will most likely provide communications for base operations, internal site control, and cross forward line of own troops (FLOT) operations.

b. The primary means of long-range communications for the special purpose units is HF-SSB radio and UHF single-channel TACSAT. The main equipment the Special Forces teams currently use is the AN/PRC-70. The AN/PRC-44 is replacing the AN/PRC-70. The AN/PRC-70 provides amplitude modulated-single sideband (AM-SSB) and FM over the frequency range from 2 to 80 MHz. The AN/PRC-70 subscriber must contact a SINCGARS net on its cue frequency but is fully interoperable with the IHFR. The IHFR systems in the manpack and vehicular radio system configurations are replacing the current HF radios in the Ranger battalions and LRSUs.

#### 2-2. Joint/Combined Operations

a. Early planning and coordination are vital for reliable communications within the joint/combined areas. Initial planning must be done at the highest level possible to ensure all contingency missions are included in the planning. Representatives from the host nation, allied forces, and subordinate units should be present during coordination meetings. This ensures the individual requirements of allied and subordinate commands are considered in the total communications plan.

b. The Joint Chiefs of Staff (JCS) have overall responsibility for joint planning of frequency engineering and management. The joint service special staff for communications and signals coordinates all joint communications and signal interoperability, establishes total force requirements, and deconflicts each service's or allied forces' unique requirements. The Communications-Electronics Directorate (J6) communications staff officer has the responsibility for the communications plan within the theater of operation. In combined commands, the combined forces staff for communications and signals staff (C6) is responsible to the combined commander for planning. The C6 does not come under the range of the JCS, but the steps for planning are similar in joint/combined arenas. Therefore, wherever a joint staff section performs a specific planning action, the

combined staff is implied to do the same. To provide highly responsive communications, the signal planning section must stay abreast of the tactical and strategic situation throughout the planning sequence. The joint frequency manager, a member of the J6 staff element, obtains frequency allocations from the combined frequency manager, who obtains them from the host nation. In the absence of a combined frequency manager, the joint manager deals directly with the host nation, usually through embassy channels. Coordination must be made with the Intelligence Directorate (J2) and Operations Directorate (J3) regarding electronic warfare (EW) planning. The J3 establishes the Joint Commanders Electronic Warfare Staff (JCEWS) for planning EW operations. The JCEWS normally consists of the J2, the J3, the electronic warfare officer (EWO), the J6, and component service representatives. The JCEWS coordinates all radio emissions in the joint arena. After coordination, the J6 publishes the Joint Restricted Frequency List (JRFL). This list specifies communications and jamming missions frequency allocations. The J3 has final approval of the JRFL. The JRFL must be continuously updated to ensure maximum effectiveness of EW assets and communications systems. After coordination, the J6 generates signal operation instructions (SOI) and provides units with call signs and frequency assignments for current operations.

(1) Planning for the SOI must include factors such as types of radios available in subordinate or allied units, cryptographic equipment, key lists, and frequency allocations available from the host nation(s) for the particular area of operation.

(2) Equipment compatibility is a major issue in network planning for HF and VHF systems. The planning must cover FH and single-channel modes of operation. All US forces use SINCGARS compatible radios, but allied nations may not have compatible FH radios. Therefore, plans should address interface between single-channel and FH radios or lateral placement of compatible radios in allied command posts (CPs). SINCGARS requires special key list variables to operate in the FH mode. These variables are developed and distributed from the highest level possible (usually the J6), but they may be developed at a lower level for special operations within the theater.

(3) The J6 should control cryptographic materials (key lists and devices) to ensure interoperability at all levels. Again, the allied forces may need to be augmented with US equipment and personnel for compatibility. Prior coordination is required to accomplish this mission.

(4) Frequency allocations are area dependent. SOIs should reflect common frequencies if units change their area of operation.

(5) All assigned service components must provide input on their organization and special communications requirements to the J6 early in the planning for SOI development and frequency allocation. The J6 develops the SOI based on the input received and internal criteria pertinent to the mission.

c. The J6 uses the Battlefield Electronic CEOI System (BECS) for automated production of the mission SOI. Since the input from units of the joint task force (JTF) determines the quality of the SOI produced, the J6 must validate the data received to ensure all contingencies are addressed. After production, the SOI is transferred either electronically, by paper copy, or by fill device to the subscribers.